



Dormitory Management System of Faculty of Nursing, Chiang Mai University

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1 Abstract

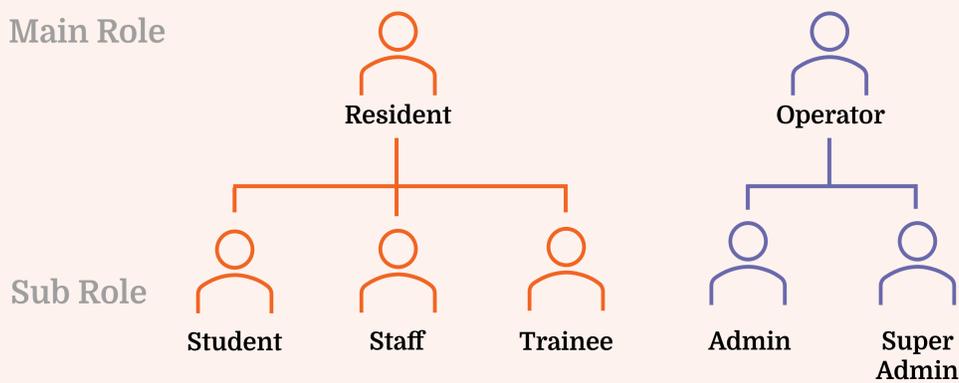
The Faculty of Nursing Dormitory assigned the Information Technology Development Unit of the Faculty of Nursing, Chiang Mai University, to develop a Dormitory Information Management System. This system is intended for managing dormitory data, publishing news and information on a website, and facilitating room reservations and payment. The dormitory aims to transition its operations into a more digital process to enhance convenience and reduce the workload of dormitory administrators. Consequently, the author was tasked with developing the system using Next.js and TypeScript. The system's database was implemented with SQL Server and Prisma, while the front end was built with Tailwind CSS and Shadcn UI. The developed system allows residents to reserve rooms and report payments, while dormitory administrators can manage reservation lists, payment records, and website contents. Finally, the system evaluation showed satisfactory and efficient user engagement, successfully reducing the administrators' workload.

2 Introduction

The current system at the Nursing Faculty uses Facebook chat pages and Google Forms for room reservations and payment confirmations, which can cause difficulties for dorm operators (e.g., by increasing their workload) and raise the chances of human errors in handling these tasks. Additionally, it poses a risk to financial data, if there are issues with the Facebook service itself. So, the authors are assigned to develop a system to solve these problems.

3 System Analysis & Design

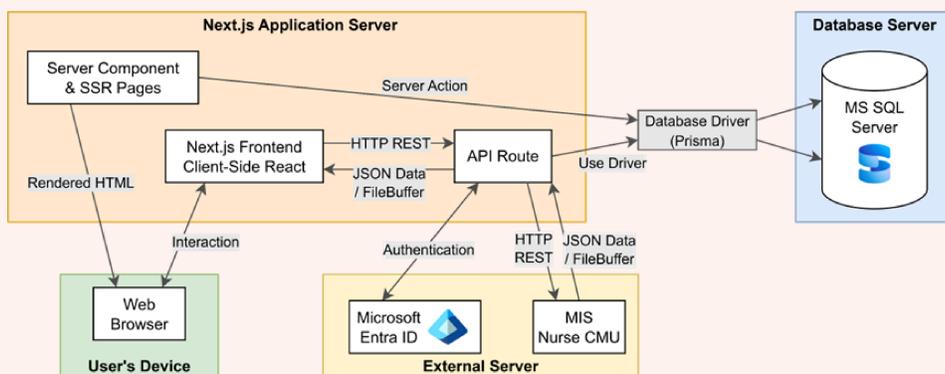
User role in system



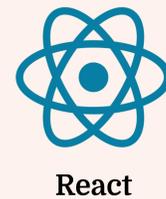
Feature in system

- Public Side**
 - Landing Page
 - News & Announcement
 - Contact
- Resident Side**
 - Booking Room & Room Payment
 - Utility Payment
 - Personal Information
- Admin Side**
 - Manage Booking & Payment
 - Manage Room in Dorm
 - Manage content on Landing Page
 - Manage content on Resident Side Page
 - Manage User Authentication & Authorization

System Architecture



4 Technologies



5 Conclusion

The Dormitory Management System for Chiang Mai University's Faculty of Nursing allows residents to reserve rooms and make payments. For the operators, this system provides tools to manage website contents and handle dormitory affairs directly, enhancing user satisfaction with the service and meeting their requirements more efficiently while reducing the required workload.